Amendments to Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-16. (Cancelled)

17. (Currently Amended) An extracorporeal blood ~~circuit for~~ filtration circuit for treating ~~of~~ a patient's blood to remove target molecules and target complex molecules, the circuit comprising:

~~the blood circuit~~ a line adapted ~~operable~~ to remove and to return a portion of the patient's blood;

a blood filter operably coupled with the ~~blood circuit~~ line so as to allow the portion of the patients' blood to flow therethrough[[;]] ,the blood filter ~~and the circuit~~ operable to form a stream of filtered blood and a stream of ~~an~~ ultrafiltrate ~~; the blood filter and other portions of the blood circuit operable to remove the ultrafiltrate from the portion of the patient's blood~~ with ultrafiltration rates of between approximately two liters per hour and twenty liters per hour[[;]], the blood filter having a nominal molecular weight cutoff of greater than 150,000 Daltons so as to sieve more than a nominal amount of the target molecules and the target complex molecules from the portion of the patient's blood~~; the molecular weight cutoff of the blood filter selected~~ and to avoid removal of significant amounts of immunoglobulins from the portion of the patients' blood;

a source for infusing a replacement fluid into the blood circuit, the source including replacement fluid comprising ~~having~~ clean target receptor molecules[[,]] in sufficient amount so as ~~into the blood circuit~~ to provide sufficient clean target receptor molecules to ~~attract~~ sequester inflammatory mediators and toxins from the patient's tissue and to ~~spaces and tissue binding sites in the patient; , the clean target receptor molecules in the replacement fluid replacing~~ replace the target receptor molecules sieved from the portion of the patient's blood by the blood filter,~~;~~ and ~~the replacement fluid comprising a pharmaceutical grade balanced salt solution with~~ sufficient ~~clean~~ albumin to maintain adequate plasma oncotic pressure with ultrafiltration rates between approximately two liters per hour and twenty liters per hour in a sufficient concentration to adequately replenish ongoing losses.

18. (previously presented) The extracorporeal blood circuit of Claim 17 wherein the replacement fluid comprises a concentration of albumin in the fluid greater than approximately 0.5 grams per one hundred milliliters.

19. (previously presented)) The extracorporeal blood circuit of Claim 17 wherein the replacement fluid comprises a concentration of albumin in the fluid less than approximately twenty grams per one hundred milliliters.

20. (previously presented) The extracorporeal blood circuit of Claim 17 wherein the blood filter comprises a nominal molecular weight cut off less than 5,000,000 Daltons.

21. (previously presented) The extracorporeal blood circuit of Claim 17 wherein the blood filter comprises a nominal molecular weight cut off less than 1,000,000 Daltons.

22. (previously presented) The extracorporeal blood circuit of Claim 17 wherein the blood filter comprises a nominal molecular weight cut off less than 500,000 Daltons.

23 (new) The extracorporeal blood circuit of Claim 17, wherein the clean target receptor molecules are albumin molecules.

24. (new) A method for removing toxic substances from the blood of a patient, the method comprising:

withdrawing blood from the patient;

delivering the blood to a hemofilter having a molecular weight cutoff of greater than 150,000 Daltons and less than 1,000,000 Daltons so as to create a return stream and an ultrafiltrate;

removing at least a portion of the ultrafiltrate;

returning the return stream to the patient; and

providing a fluid, containing clean target receptor molecules, to the patient.

25. (new) A method according to claim 24 wherein the molecular weight cutoff is a nominal molecular weight cutoff.

26. (new) A method according to claim 24 wherein the target receptor molecules comprise albumin.

27. (new) A method according to claim 24 wherein the target receptor molecules consist of albumin.

28. (new) A method according to claim 24 wherein the target receptor molecules consist of albumin and another substance.

29. (new) A method according to claim 28 wherein the other substance is a specific target receptor.

30. (new) A method according to claim 24 wherein providing the fluid includes delivering albumin sufficient to maintain adequate oncotic pressure.

31. (new) A method according to claim 24 further comprising removing all of the ultrafiltrate.

32. (new) A method according to claim 24 further comprising cleaning and returning at least a portion of the ultrafiltrate.

33 (new) A method according to claim 32 wherein cleaning includes using an adsorbent material.

34 (new) A method according to claim 24, wherein removing includes removing a predetermined amount of ultrafiltrate based on one of the body size of the patient, the time of therapy, and the rate of flow of blood to the hemofilter.

35 (new) A method according to claim 24 wherein removing includes adjusting the rate of ultrafiltrate removal by altering the rate of delivering blood to the hemofilter.

36 (new) A method according to claim 24 wherein providing the fluid includes delivering the fluid to the patient via a line.

37 (new) A method according to claim 36 wherein providing the fluid includes providing it concurrently with removing at least a portion of the ultrafiltrate.

38. (new) A method according to claim 24 wherein the toxic substances are pro-inflammatory mediators.

39. (new) A method according to claim 38 further comprising practicing the withdrawing, delivering, removing, returning and providing so as to remove a sufficient amount of inflammatory mediators so

as to effect an anti-inflammatory response from the patient.

40. (new) A method according to claim 24, further comprising infusing the fluid directly into the patient.

41. (new) A method according to claim 24, further comprising infusing the fluid into a blood circuit associated with the hemofilter.

42. (new) A method according to claim 24, further comprising practicing the withdrawing, delivering, removing, returning and providing over a duration of between 4-24 hours.

43. (new) A method according to claim 24, further comprising using an ultrafiltration rate of between 2 and 20 liters per hour.

44. (new) A method according to claim 46, further comprising using an ultrafiltration rate of between 6 and 12 liters per hour.